This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1.   (Canceled)

2.   (Canceled)

3.   (currently amended) The ~~method~~ **display circuit as recited in claim 12** ~~of claim 2~~, wherein said unencrypted key comprises an authentication key and said using comprises authenticating a source of data.

4.   (currently amended) ~~The method of claim 2~~ **The display circuit as recited in claim 12**, wherein said unencrypted key comprises a decryption key and said using comprises decrypting data.

5.   (Canceled)

6.   (currently amended) ~~The method of claim 5,~~ **The display circuit as recited in claim 12,** wherein said display unit comprises an analog display unit. 7.

7.   (currently amended) ~~The method of claim 5,~~ **The display circuit as recited in claim 12,** wherein said display unit comprises a digital display unit.

8.   (Canceled)

9.   (currently amended) ~~The method of claim 5,~~ The display circuit as recited in claim 12, ~~further comprising authenticating~~ wherein when a source of data is authenticated, ~~wherein~~ said authenticating is performed using said unencrypted key based on data sent and received on a path connected to said display unit.

10.   (currently amended) ~~The method of claim 9,~~ The display ciruit as recited in claim 9, wherein said path is implemented using 1^{2}C protocol.

11.   (currently amended) ~~The method of claim 5,~~ The display circuit as recited in claim 12, ~~wherein~~ further comprising a master block external to said display unit that sends said unencrypted key, ~~said method further comprising sending~~ wherein when said encrypted key is sent to said master block, ~~wherein~~ said ~~mater~~ master block stores said encrypted key in said non-volatile memory.

12.   (currently amended) A display circuit for use in a display unit, said display circuit comprising:

a non-volatile memory storing a encrypted key, wherein said encrypted key is generated from an unencrypted key according to an encryption protocol; and

an integrated circuit coupled to said non-volatile memory, said integrated circuit receiving said key in encrypted form and decrypting said key to generate a decrypted key, said integrated circuit using said decrypted key wherein said integrated circuit comprises a key encryption circuit receiving said unencrypted key, said key encryption circuit generating said encrypted key from said unencrypted key according to said encryption protocol, a key decryption circuit receiving said encrypted key and generating said decrypted key according to

said encryption protocol, a receiver adapted for receiving a plurality of digital data elements encoded in a display signal, wherein said digital data elements represent a plurality of pixel data elements in an encrypted form, said plurality of pixel data elements representing an image, and a data decryption circuit receiving said plurality of digital data elements and generating said plurality of pixel data elements, wherein said image is generated on a display screen based on said plurality of pixel data elements, and wherein said display signal is received according to TMDS format.

13. - 17.   (Canceled)

18.   (new) An integrated circuit, comprising:

        a key encryption circuit adapted to receive an unencrypted key and generating an encrypted key from said unencrypted key according to an encryption protocol;

        a key decryption circuit adapted to receive said encrypted key and generate said decrypted key according to said encryption protocol;

        a receiver adapted to receive a plurality of digital data elements encoded in a display signal that is received according to TMDS format and that represents a plurality of pixel data elements in an encrypted form, wherein said plurality of pixel data elements represents an image that is generated on a display screen based on said plurality of pixel data element; and

        a data decryption circuit adapted to receive said plurality of digital data elements and generate said plurality of pixel data elements.

19.   (new) The integrated circuit as recited in claim 18 wherein the integrated circuit is coupled to a non-volatile memory suitable for storing the encrypted key.

20.   (new) The integrated circuit as recited in claim 19, further comprising:

a memory adapted to receive said encrypted key;

a port coupled to said memory, said port receiving said encrypted key from said memory and sending said encrypted key to a master block adapted to store said encrypted key in said non-volatile memory.

21.   (new) The integrated circuit as recited in claim 18, wherein the integrated circuit is coupled to a display unit.

22.   (new) The integrated circuit as recited in claim 21, where said display unit is a digital display unit.

23.   (new) The integrated circuit as recited in claim 21, wherein said display unit is an analog display unit.

24.   (new) A method of using and storing a cryptography key, comprising:

receiving an unencrypted key

generating said encrypted key from said unencrypted key according to an encryption protocol

generating a decrypted key by decrypting the encrypted key according to said encryption protocol;

receiving a plurality of digital data elements encoded in a display signal wherein said display signal is received according to TMDS format, and wherein said digital data elements represent a plurality of pixel data elements in an encrypted form that represent an image;

decrypting said encrypted plurality of digital data elements;

generating said plurality of pixel data elements based upon said decrypted plurality of digital data elements; and

generating said image on a display screen based on said decrypted plurality of pixel data elements.

25.   (new) The method as recited in claim 23, further comprising:

storing an encrypted key generated from an unencrypted key according to an encryption protocol in a non-volatile memory.

26.   (new) Computer program product for using and storing a cryptography key, comprising:

computer code for receiving an unencrypted key

computer code for generating said encrypted key from said unencrypted key according to an encryption protocol

computer code for generating a decrypted key by decrypting the encrypted key according to said encryption protocol;

computer code for receiving a plurality of digital data elements encoded in a display signal wherein said display signal is received according to TMDS format, and wherein said digital data elements represent a plurality of pixel data elements in an encrypted form that represent an image;

computer code for decrypting said encrypted plurality of digital data elements;

computer code for generating said plurality of pixel data elements based upon said decrypted plurality of digital data elements;

computer code for generating said image on a display screen based on said decrypted plurality of pixel data elements; and

computer readable medium for storing the computer code.